AMENDMENT

In the Claims:

This listing of claims will serve to replace all prior versions and listings of claims in the present application:

1. (Currently amended) A rotary liquefied natural gas boil-off compressor comprising ~~having~~ at least two compression stages in series, a gas passage passing through the series of compression stages, the gas passage extending through and being in heat exchange relationship with at least one cooling means disposed between the ~~or each pair of~~ compression stages, ~~characterised in that~~ wherein the ~~cooling means or~~ at least one ~~of the~~ cooling means is a cryogenic cooling means ~~and in that there is~~ having valve means for controlling flow of cryogenic coolant into the cryogenic cooling means in response to ~~the~~ an inlet temperature, or a related parameter, of the ~~next~~ compression stage next in series downstream of the cryogenic cooling means ~~so as, in use,~~ to maintain said inlet temperature at a ~~chosen sub-ambient~~ temperature ~~or~~ between chosen sub-ambient temperature limits.

2. (Currently amended) The compressor according to claim 1, ~~characterised in that~~ wherein the cryogenic cooling means comprises an indirect cooling means.

3. (Currently amended) The compressor according to claim 1, ~~characterised in that~~ wherein the cryogenic cooling means comprises a direct cooling means.

4. (Currently amended) The compressor according to claim 3, ~~characterised in that~~ wherein the direct cooling means comprises a chamber having an inlet for the introduction of a cryogenic liquid.

5. (Currently amended) The compressor according to claim 4, ~~characterised in that the outlet of~~ wherein the direct cooling ~~communicates~~ means comprises an outlet in communication with a vessel adapted to disengage particles of liquid from ~~the~~ natural gas, the vessel having an outlet for the natural gas ~~communicating~~ to communicate with said next compression stage.

6. (Currently amended) The compressor according to claim 1, ~~characterised in that there is~~ further comprising a cryogenic cooling means intermediate each pair of successive compression stages.

7. (Currently amended) The compressor according to claim 1, ~~characterised in that~~ wherein there are at least three compression stages in sequence, ~~and in that there is~~ at least one direct cryogenic cooling means and at least one indirect cryogenic cooling means.

8. (Currently amended) The compressor according to claim 7, ~~characterised in that~~ wherein an inlet of ~~a~~ the at least one direct cryogenic cooling means communicates with an outlet of ~~an~~ the at least one indirect cooling cryogenic means.

9. (Currently amended) The compressor according to claim 1, ~~characterised in that there is~~ comprising a cryogenic cooling means downstream of ~~the~~ a final stage of the series of compression ~~stage~~stages.

10. (Currently amended) The compressor according to claim 1, ~~characterised in that there is~~ comprising a cryogenic cooling means upstream of ~~the~~ a first stage of the series of compression ~~stage~~stages.

11. (Currently amended) The compressor according to claim 1, ~~characterised in that~~ wherein the compressor ~~has~~ comprises an intermediate inlet communicating with a forced liquefied natural gas vaporiser.

12. (Currently amended) A liquefied natural gas storage tank having an outlet for boiled-off natural gas communicating with ~~a~~ the compressor ~~as claimed in~~ of claim 1, ~~the~~ said cryogenic cooling means ~~communicating~~ in communication with the liquefied natural gas in the storage tank.

13. (Currently amended) A method of operating a rotary liquefied natural gas boil-off compressor having at least two compression stages in series and a gas passage passing through the series of compression stages, the method comprising cooling [[the]] compressed boiled-off natural gas by ~~means of~~ a cryogenic coolant downstream of one of the compression stages and upstream of another one of the compression stages in series, monitoring [[the]] an inlet temperature, or a related parameter, of the compressed natural gas at [[the]] an inlet to the other compression stage, and adjusting [[the]] a flow rate of the cryogenic coolant ~~so as~~ to maintain said inlet temperature at a ~~chosen sub-ambient~~ temperature ~~or~~ between chosen sub-ambient temperature limits.

14. (Currently amended) The method according to claim 13, ~~characterised in that~~ wherein the inlet temperature of each of the compression ~~stage~~ stages is maintained at a temperature in the range of minus 50 °C to minus 140°C.

15. (Currently amended) The method according to claim 14, ~~characterised in that~~ wherein the pressure ratio across each of the compression ~~stage~~ stages is in the range 2.15 : 1 to 3 : 1.

16. (Currently amended) The method according to claim [[15]] 14, ~~characterised in that~~ wherein the pressure ratio across each of the compression ~~stage~~stages is in the range 2.5 : 1 to 3 : 1.